

REMARKS

Claims 1-3, 12, and 13 have been examined, and claims 4-11 have been withdrawn from consideration. Claims 1, 2, and 12 have been rejected under 35 U.S.C. § 101, claims 1, 3, 12, and 13 have been rejected under 35 U.S.C. § 102(e), and claim 2 has been rejected under 35 U.S.C. § 103(a).

I. Rejection under 35 U.S.C. § 101

Claims 1, 2 and 12 have been rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Specifically, the Examiner maintains that the claims do not relate to a “practical application” that produces a “useful, tangible, and concrete” result.

A. Claim 1

Applicant has amended claim 1 to incorporate the limitations of claim 12, and submits that the claim clearly recites a “practical application” that produces a “useful, tangible, and concrete” result. For example, the claim relates to a method of processing observed data which separates a signal component and a noise component contained in the observed data. Thus, the claim has a practical application. Also, the claim states that the signal component is output. As such, the information constituting the signal component is output, and thus, the claimed processing method produces a “useful, tangible, and concrete” result.

In light of the discussion above, Applicant submits that the claim satisfies the requirements of 35 U.S.C. § 101.

B. Claim 2

Since claim 2 depends upon claim 1, Applicant submits that it contains at least the statutory subject matter of claim 1.

C. Claim 12

Since claim 12 has been canceled without prejudice or disclaimer, the rejection of the claim is moot.

II. Rejection under 35 U.S.C. § 102(e) over U.S. Patent Publ. No. 2006/0111623 to Stetson ("Stetson")

Claims 1, 3, 12, and 13 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Stetson.

A. Claim 1

Applicant submits that claim 1 is patentable over the reference. For example, the claimed method plots a first data set and a second data set on a coordinate system. Then, the method determines a rotating angle of a rotating matrix so as to minimize a distribution range of the first data set and the second data set projected on an axis of the coordinate system.

The Examiner contends that Paragraphs 0035 and 0041 of Stetson suggest determining the rotating angle, as claimed. Applicant respectfully disagrees.

For example, Paragraph 0035 of the reference states that one could heuristically sweep through a large range of angles about which to rotate principal components to yield an independent set of data. While this portion of the reference teaches sweeping through a lot of rotating angles to obtain an independent set of data, it does not suggest determining a rotating

angle of a rotating matrix to minimize a distribution range of a first data set and a second data set, as claimed.

Also, Paragraph 0041 of the reference states that, in another embodiment, for each possible pair of wavelengths of signals 410 and 420, the data are rotated by an angle of the best linear fit between the two signals 410 and 420. However, such portion of the reference does not suggest determining a rotating angle of a matrix so as to minimize a distribution range of the first and second data sets projected on an axis of a coordinate system.

Furthermore, by determining the rotating angle of the rotating matrix in the claimed manner, performing a principal component analysis ("PCA") to separate the signal component and the noise component contained in the observed data is not necessary. However, Paragraphs 0034, 0035, and 0041 of Stetson clearly disclose that performing such a signal separation is essential.

In light of the discussion above, Applicant submits that claim 1 is patentable over the reference.

B. Claim 3

Since claim 3 depends upon claim 1, Applicant submits that it is patentable at least by virtue of its dependency.

C. Claim 12

Since claim 12 has been canceled without prejudice or disclaimer, the rejection of the claim is moot.

D. Claim 13

Since claim 13 depends upon claim 1, Applicant submits that it is patentable at least by virtue of its dependency.

III. Rejection under 35 U.S.C. § 103(a) over Stetson and U.S. Patent No. 6,265,868 to Richter ("Richter")

Claim 2 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Stetson and Richter. Since claim 2 depends upon claim 1, and since Richter does not cure the deficient teachings of Stetson with respect to claim 1, Applicant submits that claim 2 is patentable at least by virtue of its dependency.

IV. Conclusion

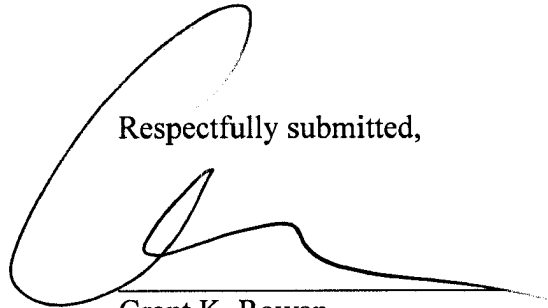
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appl. No. 10/695,907

Attorney Docket No. Q78282

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A large, stylized handwritten signature in black ink, likely belonging to Grant K. Rowan, positioned above the printed name and registration number.

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